What is Claimed is:

1. An in-situ mold deformation monitoring method for nanoimprint, said method using a database for storing temporary information, and comprising the following steps of:

(A) providing a mold, and marking said mold with at least one monitoring mark;

(B) installing at least one monitoring device and at least one signal source around said mold;

(C) recording a reference pattern in said database before imprinting, said reference pattern being obtained by using said signal source to issue signals to said monitoring marks, and using said monitoring device to receive interference pattern reflected by said monitoring marks, said interference pattern then being transformed into input signal to computers and recorded as said reference pattern in said database;

(D) detecting a plurality of interference patterns during a complete imprinting step, transforming said interference patterns into input signals to computers, and recorded in said database;

(E) comparing said interference patterns recorded in step (D) with said reference pattern record in step (C); and

(F) issuing controlling signals based on the result of the comparison in step (E).

2. The method as claimed in Claim 1, wherein said mold is a mold for micro and nano scale structures.

3. The method as claimed in Claim 1, wherein said mold is a mold for manufacturing micro and nano scale patterns.

4. The method as claimed in Claim 1, wherein said monitoring device is an optical monitoring device.

5. The method as claimed in Claim 4, wherein said optical monitoring device is a CCD monitoring device.

6. The method as claimed in Claim 1, wherein said signal source is optical signal.

7. The method as claimed in Claim 6, wherein a light adjustor is placed between said optical signal source and said mold.

8. The method as claimed in Claim 7, wherein said light adjustor is a light splitter.

9. The method as claimed in Claim 7, wherein said light adjustor is a light attenuator.

10. The method as claimed in Claim 6, wherein said optical signal source is a laser source.

11. The method as claimed in Claim 1, wherein said signal source is electrical signal.

12. The method as claimed in Claim 1, wherein said signal source is magnetic signal.

13. The method as claimed in Claim 1, wherein said signal source is electromagnetic signal.

14. The method as claimed in Claim 1, wherein said database is accessed and processed by a PC.

15. The method as claimed in Claim 1, wherein said controlling signal is to stop operating the mold.

16.The method as claimed in Claim 1, wherein said controlling signal is to cause the imprinting machine to issue warning.

17.The method as claimed in Claim 1, wherein said controlling signal is to cause said monitoring device continuing the monitoring.

18.An in-situ monitoring system for mold deformation in nanoimprint, said system comprising:

a mold, and at least one monitoring mark on said mold;

at least one signal source, installed around said mold;

at least one monitoring device, installed around said mold; and

a database, for storing temporary information.

comprising a program code for real-time detecting of said monitoring marks on said mold, and executing the following steps of:

(A) recording a reference pattern in said database before imprinting, said reference pattern being obtained by using said signal source to issue signals to said monitoring marks, and using said monitoring device to receive interference pattern reflected by said monitoring marks, said interference pattern then being transformed into input signal to computers and recorded as said reference pattern in said database;

(B) detecting a plurality of interference patterns during imprinting, transforming said interference patterns into input signals to computers, and recorded in said database;

(C) comparing said interference patterns recorded in step (B) with said reference pattern record in step (A); and

(D) issuing controlling signals based on the result of the comparison in step (C).

19. The system as claimed in Claim 18, wherein said mold is a mold for micro and nano structures.

20. The system as claimed in Claim 18, wherein said mold is a mold for manufacturing micro and nano scale patterns.

21. The system as claimed in Claim 18, wherein said monitoring device is an optical monitoring device.

22. The system as claimed in Claim 21, wherein said optical monitoring device is a CCD monitoring device.

23. The system as claimed in Claim 18, wherein said signal source is optical signal.

24. The system as claimed in Claim 23, wherein a light adjustor is placed between said optical signal source and said mold.

25. The system as claimed in Claim 24, wherein said light adjustor is a light splitter.

26. The system as claimed in Claim 24, wherein said light adjustor is a light attenuator.

27. The system as claimed in Claim 23, wherein said optical signal source is a laser source.

28. The system as claimed in Claim 18, wherein said signal source is electrical signal.

29. The system as claimed in Claim 18, wherein said signal source is magnetic signal.

30.The system as claimed in Claim 18, wherein said signal source is electromagnetic signal.

31.The system as claimed in Claim 18, wherein said database is accessed and processed by a PC.

32.The system as claimed in Claim 18, wherein said controlling signal is to stop operating the mold.

33.The system as claimed in Claim 18, wherein said controlling signal is to cause the imprinting machine to issue warning.

34.The system as claimed in Claim 18, wherein said controlling signal is to cause said monitoring device continuing the monitoring.